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#### NOTICE OF ALLOWANCE AND FEE(S) DUE

466 7590 12/09/2009

YOUNG & THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314

METAL OXIDE

EXAMINER
NGUYEN, KHANH TUAN

PAPER NUMBER

ART UNIT

DATE MAILED: 12/09/2009

APPLICA'	ION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/55	1.948	10/06/2005	Myrtil Kahn	0617-1028	6839	

TITLE OF INVENTION: METHOD FOR THE PREPARATION OF A COMPOSITION OF NANOPARTICLES OF AT LEAST ONE CRYSTALLINE

 APPLN. TYPE
 SMALL ENTITY
 ISSUE FEE DUE
 PUBLICATION FEE DUE
 PREV. PAID ISSUE FEE
 TOTAL FEES) DUE
 DATE DUE

 nonprovisional
 NO
 \$1510
 \$300
 \$0
 \$1810
 03/09/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correcte maintenance fee notificat	ed below or directed oth	ng the Patent, advance herwise in Block 1, by	orders and notification (a) specifying a new co	of m	naintenance fees v pondence address:	vill be and/or	mailed to the current (b) indicating a sepa	corres	spondence address as TEE ADDRESS" for	
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block I for any change of address)					Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
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Alexandria, VA	22314								(Depositor's name)	
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APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR		ATTO	RNEY DOCKET NO.	CO	NFIRMATION NO.	
10/551,948	10/06/2005	•	Myrtil Kahn			•	0617-1028		6839	
TITLE OF INVENTION METAL OXIDE	: METHOD FOR THE	PREPARATION OF A	A COMPOSITION OF	NAN	NOPARTICLES (	F AT	LEAST ONE CRYST	[ALL]	INE	
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE		DATE DUE	
nonprovisional	NO	\$1510	\$300		\$0		\$1810		03/09/2010	
EXAM	INER	ART UNIT	CLASS-SUBCLASS							
NGUYEN, KI		I796	252-500000							
1. Change of correspondence address or indication of "Fee Address" (3 CFR 1.56).  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  dress form PTO/SB/122) attached.  "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02) or more recent) attached. Use of a Custom Number is required.			(2) the name of a s registered attorney 2 registered patent	mes of up to 3 registered patent attorneys I.  R. alternatively,  ne of a single firm (having as a member a attorney or agent) and the names of up to d patent autorneys or agents. If no name is anne will be printed.						
3. ASSIGNEE NAME AI PLEASE NOTE: Unit recordation as set forti (A) NAME OF ASSIG	ess an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assigned pletion of this form is NO	e data will appear on the DT a substitute for filing (B) RESIDENCE: (C	ne pa gan a	ntent. If an assign assignment. and STATE OR C	OUNT	'RY)			
4a. The following fee(s)		-	4b. Payment of Fee(s): (	Pleas						
☐ Issue Fee ☐ Publication Fee (N	o small entity discount p	nermitted)	A check is enclose  Payment by credit		1 Form PTO-2038	is atta	ched			
	Advance Order - # of Copies   The Director is hereby authorized to charge the required fee(s), any deficiency, or credit overpayment, to Deposit Account Number (enclose an extra copy of this					cy, or credit any a copy of this form).				
5. Change in Entity Stat	tus (from status indicates s SMALL ENTITY statu		_				ITTY status. See 37 CI			
NOTE: The Issue Fee and interest as shown by the r	d Publication Fee (if requeeords of the United Sta	uired) will not be accept ites Patent and Trademan	ed from anyone other th k Office.	an th	ne applicant; a regi	stered.	attorney or agent; or th	ne assi	gnee or other party in	
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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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10/551,948	10/06/2005	Myrtil Kahn	0617-1028	6839	
466 75	90 12/09/2009		EXAM	INER	
YOUNG & THO	MPSON	NGUYEN, KHANH TUAN			
209 Madison Stree	t		ART UNIT	PAPER NUMBER	
Suite 500 Alexandria, VA 22	314		1796 DATE MAILED: 12/09/200	9	

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 329 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 329 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Application No. Applicant(s) 10/551 948 KAHN ET AL. Notice of Allowability Examiner Art Unit KHANH T NGUYEN 1796 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 09/03/2009. The allowed claim(s) is/are 25-35,39-44 and 50. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some\* c) ☐ None of the: a) X All 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. \( \overline{\text{ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other

Primary Examiner, Art Unit 1796

/Mark Kopec/

/KTN/

11/29/2009

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## DETAILED ACTION

1. The amendment filed on 09/03/2009 is entered and acknowledged by the Examiner. Claims 25-35, 39-44, and 50 are currently pending in the instant application. Claims 1-24, 36-38, and 45-49 have been canceled.

 The rejection as set forth in the pervious Office action mailed on 06/03/2009 is withdrawn in light of Applicant's amendment.

# Allowable Subject Matter

- 3. Claims 25-35, 39-44, and 50 are allowed.
- 4. The following is an examiner's statement of reasons for allowance: The amendment filed on 09/03/2009 has been carefully reviewed and searched. The closest prior art to Hyeon (US Pub. 2004/0247503) and Fau (US Pat. 6,395,053) teach a process that requires thermal treatment, whereas the amended claims does not involve thermal treatment to produce the nanoparticles. Currently, there is no prior art alone or in combination that teaches or suggest a process for preparing nanoparticle comprising of the claimed process steps without involving

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thermal treatment. The Examiner noted that the phase "non-aqueous solvent medium" is definite as a non-alcohol that is free of any compound having reactive hydroxyl function and free of alcohol function (see Specification at page 11, lines 9-13). Therefore, claims 25-35, 39-44, and 50 are allowed over the prior art of record.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH T. NGUYEN whose telephone number is (571) 272-8082. The examiner can normally be reached on Monday-Friday 7:00-4:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Kopec/ Primary Examiner, Art Unit 1796

/Khanh Tuan Nguyen/ Examiner 11/29/2009